

SYSTEM AND METHOD FOR FABRICATING CONTACT HOLES

ABSTRACT OF THE DISCLOSURE

5 A method of forming a plurality of contact holes of varying pitch and density in a contact layer of an integrated circuit device is provided. The plurality of contact holes can include a plurality of regularly spaced contact holes having a first pitch along a first direction and a plurality of semi-isolated contact holes having a second pitch along a second direction. A double-dipole illumination
10 source can transmit light energy through a mask having a pattern corresponding to a desired contact hole pattern. The double-dipole illumination source can include a first dipole aperture, which is oriented and optimized for patterning the regularly spaced contact holes, and a second dipole aperture, which is oriented substantially orthogonal to the first dipole aperture and optimized for patterning
15 the plurality of semi-isolated contact holes. The contact layer can be etched using the patterned photoresist layer.

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